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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,017	09/25/2003	Mi Hyun Kim	2080-3-176	7862

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EXAMINER

ZHAO, DAQUAN

ART UNIT	PAPER NUMBER
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2621

MAIL DATE	DELIVERY MODE
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06/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/671,017		KIM ET AL.	
	Examiner		Art Unit	
	Daquan Zhao		2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1-31/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Kikuchi et al (US 6,532,334 B1).

Regarding claim 1, Kikuchi et al teach a recording medium comprising: a first recording area for recording data streams of a title domain and menu domain, said title domain comprising a plurality of titles (e.g. column 9, line 65- column 10, line 2 describes the user menu can be written, and column 17, lines 12-13, "titles" are reproduced, figure 3, video object set 80 is corresponding to the first recording area); and a second recording area for recording navigation information for control of reproduction of the data streams (e.g. figure 3, the control information 78 corresponds to the second recording area and the playback control information 102 corresponds to the navigation information, column 8, lines 30-64), wherein the navigation information in the second recording area comprises playback control information for designating a location in the title domain to be returned to when playback operation resumes (e.g. figure 6, the playback interrupt information table 124 contains the title number for resume playback,

column 11, lines 24-67 and column 18, lines 30-40, wherein the title number corresponds to the designating location in the title domain).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 26, 27, 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al (US 6,532,334 B1) as applied to claim 1 above, and further in view of Tsumagari et al (US 2003/0,161,615 A1).

See the teaching of Kikuchi et al above.

Regarding claim 26, Kikuchi et al fail to teach a resume command for designating a title in the title domain, when a playback operation is returned from the menu domain to the title domain. Tsumagari et al teach a resume command for designating a title in the title domain, when a playback operation is returned from the menu domain to the title domain (e.g. paragraph [0225], "user event signal (c) that means resume" corresponds to the resume command). It would have been obvious for one ordinary skill in the art at the time the invention was made to arrange the resume command taught by Tsumagari et al in the navigation information area of the recording

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medium taught by Kikuchi et al to increase the data processing speed since all the control information can be read out at once from the recording medium.

Regarding claim 2, Tsumagari et al teach playback operation is resumed from the menu domain to the title domain (e.g. paragraph [0225]).

Regarding claim 27, Kikuchi et al teach a title cell number (e.g. figure 4, cell 94, and figure 10, column 9, line 23).

Regarding claim 28, Kikuchi et al teach a video title set number (e.g. column 11, line 29).

Regarding claim 30, Kikuchi et al teach program chain playback control status information (e.g. column 10, lines 50-58).

3. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi (6,532,334 B1) and Tsumagari et al (US 2003/0,161,615 A1) as applied to claims 2, 26, 27, 28 and 30 above, and further in view of Kim et al (US 7,113,694 B2).

Regarding claim 29, Kikuchi et al and Ono fail to teach a navigation pack start address. Kim et al teach the navigation pack start address (e.g. column 4, lines 49-50 also see abstract). It would have been obvious for one ordinary skill in the art at the time the invention was made to incorporate the teaching of Kim et al into the teaching of Kikuchi et al and Tsumagari et al to increase the data processing speed.

4. Claims 11, 13, 21, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 6,914,863 B2), in view of Tsumagari et al (US 2003/0,161,615 A1), and further in view of Yasuda et al (US 5,999,694).

Regarding claims 11 and 21, Ono teaches a method for controlling playback of audio/ video data recorded on a recording medium, the method comprising: confirming playback control information for designating a title in a title domain having system parameters comprising identification information indicating that the first title is resumable (e.g. abstract and column 1, line 44- column 2, line 11). Tsumagari et al teach a playback operation returning from a menu domain to the title domain, the title domain comprising a plurality of titles; and seeking and playing a the title corresponding to the playback control information (e.g. paragraph [0063] discloses the recording medium has plurality of titles, paragraph [0225] discloses resume title playback). It would have been obvious for to combine the teaching of Ono and Tsumagari et al to enhance the navigation system that can add a wide variety of interactive feature to playback of AV content while assuring the compatibility to the current or legacy DVD-video standard. Ono and Tsumagari et al both fail to specify searching for the playback control information. Yasuda et al teach searching for the playback control information (e.g. column 16, lines 13-20, the sector address where the reproduction stop is considered to be the control information). It would have been obvious for one ordinary skill in the art at the time the invention was made to incorporate the teaching of Yasuda et al into the teaching of Ono and Tsumagari et al to resume playback of the first title of the recording medium and to increase the accuracy of retaining the playback position of

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the first title where the reproduction was stop since Yasuda et al teach searching the sector address located approximately 2.5 second the reproduction stop to offset the time delay cause by the length of the GOP, the buffer and the decoder(Yasuda et al, column 16, lines 22-33).

Regarding claim 13, Tsumagari et al teach a video title set number (e.g. figure 31, VTS#1...VTS#n).

Regarding claim 22, Ono teaches the identification information is included in system parameters of each of the plurality of titles in the title domain (e.g. column 3, lines 30-49).

5. Claims 17, 18, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 6,914,863 B2), Tsumagari et al (US 2003/0,161,615 A1) and Yasuda et al (US 5,999,694) as applied to claims 11, 13, 21, 22 above, and further in view of Kim et al (US 7,113,694 B2).

Regarding claims 17, 18, 19 and 20, Ono, Tsumagari et al and Yasuda et al fail to teach updating the first playback control information with a second playback control information. Kim et al teach updating the first playback control information with a second playback control information (e.g. abstract, and column 4, line 60- column 5, line 3, updating the address of the navigation data corresponding to updating the playback control information). It would have been obvious for one ordinary skill in the art at the time the invention was made to incorporate the teaching of Kim et al into the teaching of Ono, Tsumagari et al and Yasuda et al to update the playback control information using

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the program chain command to correctly playback the video data and increase the system's reliability.

6. Claims 31, 32, 33, 34, 35, 36, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 4,914,863 B2) and further in view of Tanaka et al (US 6,782,192 B1).

Regarding claims 31, 39 and 40, Ono teaches A method of resuming playback of audio/video (A/V) data recorded on a recording medium, the method comprising: determining resumable status of a first title recorded on the recording medium; resuming playback of the first title if the resumable status is equal to a first value (e.g. column 2, lines 1-11, and figure 12, step 12-6 start resume play, column 9, lines 15-19). Ono fails to teach a bonus title. Tanaka et al teach a bonus title (e.g. column 4, lines 7-8). It would have been obvious for one ordinary skill in the art at the time the invention was made to playback the bonus title taught by Tanaka et al in the system of Ono and determine the resumable status and playback the first title once the playback of a bonus title associated with the first title is concluded (e.g. Ono, abstract, and column 3, lines 1-29, user can turn the power off once the bonus title playback is concluded and then turn the power back on to resume playback) to enhance the system's reliability.

Regarding claim 32, Ono teaches resuming playback of a second title if the resumable status is equal to a second value (e.g. column 5, lines 44-67).

Regarding claim 33, Ono teaches determining a first playback location associated with the first title (e.g. column 3, lines 30-49, store sector position).

Regarding claim 34, Ono teaches the first playback location is associated with a location where the first title begins (e.g. user turn off the power at the first title begins).

Regarding claim 35, Ono teach the first playback location is associated with a location other than where the first title begins (e.g. user turn off the power at the location associated with a location other than where the first title begins).

Regarding claim 36, Ono teach the first playback location is associated with a location where a second title begins (e.g. user turn off the power at a second title begins).

7. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al (US 6,532,334 B1) as applied to claim 1 above.

See the teaching of Kikuchi et al above.

Regarding claims 3 and 5, Kikuchi et al teach the navigation information further comprises a resume command for resuming the playback operation to the title (e.g. column 18, line 30- column 19, line 4, navigation information corresponds to the control information 102, and the playback interrupt information 124 for resuming playback is corresponding to the resume command, also see abstract). Kikuchi et al disclose a PGC information table. However, Kikuchi et al fail to specify the resume command is recorded and managed in the program chain command table. Changing the location of the resume command does not make any patentable difference since the location of the command in the data structure would not modify the function of the command. See In re

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Japikse, 86 USPQ 70 (CCPA 1950). It would have been obvious for one ordinary skill in the art at the time the invention was made to rearrange the playback interrupt information table, which is corresponding to the resume command, into the PGC information table, which is corresponding to the program chain command table because changing the location of the resume command does not provide any patentable difference.

Regarding claim 4, Kikuchi et al teach the navigation information further comprises command information about number of resume commands (e.g. column 20, lines 14-18, the resume marker information corresponding to the command information about number of resume commands).

8. Claims 6-9, 23, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al (US 6,532,334 B1) as applied to claim 1 above, and further in view of Ono (US 6,914,863 B2).

see the teaching of Kikuchi above.

Regarding claims 6 and 8, Kikuchi et al fail to teach a plurality of system parameters. Ono teaches a plurality of system parameters (e.g. column 3, lines 30-49, reproducing parameters). It would have been obvious for one ordinary skill in the art at the time the invention was made to have utilized the system parameters in the second title to reduce the data processing time.

Regarding claims 7 and 9, Ono teaches the system parameters comprises identification information indicating that the title is resumable (e.g. column 4, lines 7-11,

resume when counter is 0, disapprove of resume when counter is not 0; also see column 2, lines 1-11).

Regarding claim 23, Kikuchi et al teach the first recording area is a video recording area (e.g. figure 3, data area 80).

Regarding claim 24, Kikuchi et al teach the first recording area is a DVD-video recording area (e.g. figure 3, data area 80).

Regarding claim 25, Kikuchi et al teach the second recording area is a file structure area (e.g. figure 3, control information 78).

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al (US 6,532,334 B1) and Ono (US 6,914,863 B2) as applied to claims 6-10, 23, 24 and 25 above, and further in view of Kim et al (US 7,113,694 B2).

Regarding claim 10, Kikuchi et al teach a title cell number (e.g. figure 4, cell 94, and figure 10, column 9, line 23), a video title set number (e.g. column 11, line 29), and program chain playback control status information (e.g. column 10, lines 50-58). Kikuchi et al and Ono fail to teach a navigation pack start address. Kim et al teach the navigation pack start address (e.g. column 4, lines 49-50 also see abstract). It would have been obvious for one ordinary skill in the art at the time the invention was made to incorporate the teaching of Kim et al into the teaching of Kikuchi et al and Ono to increase the data processing speed.

10. Claims 12, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 6,914,863 B2), Tsumagari et al (US 2003/0,161,615 A1), and Yasuda et al (US 5,999,694), as applied to claims 11, 13, 21, and 22 above, and further in view of Kikuchi et al (US 6,532,334 B1).

Regarding claim 12, Ono, Tsumagari et al and Yasuda et al fail to teach a title cell number. Kikuchi et al teach the title cell number (e.g. figure 4, cell 94, and figure 10, column 9, line 23). It would have been obvious for one ordinary skill in the art at the time the invention was made to have arranged the title cell number into the control information into the system disclosed by Ono, Tsumagari et al and Yasuda et al to increase the data processing speed.

Regarding claim 15, Kikuchi et al teach program chain playback control status information (e.g. column 10, lines 50-58).

Regarding claim 16, Kikuchi et al teach the first playback control information comprises program chain playback control status information (e.g. column 10, lines 50-58, user can turn off the power at the first position of the first title to cause the system to resume when the power is turn on again, also see the teaching of Ono).

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 6,914,863 B2), Tsumagari et al (US 2003/0,161,615 A1), and Yasuda et al (US 5,999,694), as applied to claims 11, 13, 21 and 22 above, and further in view of Kim et al (US 7,113,694 B2).

Regarding claim 14, Ono, Tsumagari et al and Yasuda et al fail to teach a navigation pack start address. Kim et al teach the navigation pack start address (e.g. column 4, lines 49-50 also see abstract). It would have been obvious for one ordinary skill in the art at the time the invention was made to incorporate the teaching of Kim et al into the teaching of Ono, Tsumagari et al and Yasuda et al to increase the data processing speed.

12. Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 6,014,863 B2) and Tanaka et al (US 6,782,192 B1) as applied to claims 31, 32, 33, 34, 35, 36, 39 and 40 above, and further in view of Kikuchi et al (US 6,532,334 B1).

Regarding claim 37, Ono and Tanaka et al fail to teach the program chain command. Kikuchi et al teach the program chain command (e.g. column 8, lines 40-46). It would have been obvious for one ordinary skill in the art at the time the invention was made to incorporate the teaching of Kikuchi et al into the teaching of Ono and Tanaka et al to provide the first playback location for the first title to increase the data processing speed.

Regarding claim 38, Kikuchi et al teach the mapping table associated with a program chain command (e.g. column 8, lines 40-64, PGC information table).

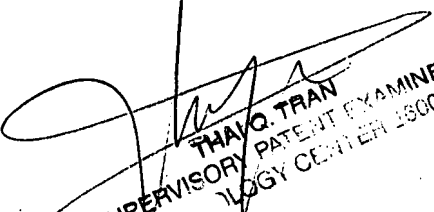
Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hamada et al (US 2002/0071351); Misono (US 5,365,502).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daquan Zhao whose telephone number is (571) 270-1119. The examiner can normally be reached on M-Fri. 7:30 -5, alt Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai Q, can be reached on (571)272-7382. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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